2006 RESEARCH PROBLEM STATEMENT

Problem Title: **Development of an indirect wildlife impact methodology** **No.: 06.04-04**

Submitted By: Tom Twedt, BIO-WEST; and Greg Punske, FHWA

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1. Briefly describe the problem to be addressed:

The indirect impacts on wildlife (primarily noise) on constructing and operating highways in Utah and nationwide are not well understood, but are of concern to resource agencies ever more frequently. The agencies are obligated to evaluate these impacts, but have no available methodologies or "tools" to use, thus they tend to "guesstimate" (probably overestimating) the impacts. A reliable method that can be replicated and readily applied is needed to facilitate the environmental review process and make it more efficient and accurate.

Strategic Goal: **X Preservation** **X Operation** ☐ **Capacity** ☐ **Safety**
(Check all that apply)

2. List the research objective(s) to be accomplished:

1. Evaluate existing state and federal approaches to indirect wildlife impact assessment
2. Develop a practical and feasible assessment methodology for Utah agencies.
3. Make methodology available for use.

3. List the major tasks required to accomplish the research objective(s): **Estimated person-hours**

1. Coordinate agency involvement and support	80
2. Determine and evaluate current approaches	160
3. Assess preliminary Legacy Parkway indirect avian impacts	240
4. Formulate assessment methodology	320
5. Coordinate with agencies and refine as appropriate	120
6. Develop guidance manual and distribute	280

4. Outline the proposed schedule (when do you need this done, and how we will get there):

Total Time = 2 years
Complete Tasks 1 and 2 first summer (2006)
Complete Task 3 following fall and winter (2006-2007)
Complete Task 4 next spring (2007)
Refine with 2007 Legacy data during fall /winter (2007/2008)
Complete Task 5 winter (2008)
Complete Task 6 spring (2008)

5. Indicate type of research and / or development project this is:

Large: **X Research Project** ☐ **Development Project**
Small: ☐ **Research Evaluation** ☐ **Experimental Feature** ☐ **New Product Evaluation** ☐ **Tech Transfer Initiative** :
☐ **Other**_____

6. What type of entity is best suited to perform this project (University, Consultant, UDOT Staff, Other Agency, Other)?

Consultant or University with highway impact assessment experience. Resource agency collaboration and oversight is available and desirable.

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7. What deliverable(s) would you like to receive at the end of the project? (e.g. useable technical product, design method, technique, training, workshops, report, manual of practice, policy, procedure, specification, standard, software, hardware, equipment, training tool, etc.)

A technical report and a procedural manual which will be usable by UDOT specialists, agencies and consultants.

8. Describe how will this project be implemented at UDOT.

Upon approval, incorporate methodology into UDOT Environmental Process. Encourage use by resource agencies and consultants on appropriate new projects.

9. Describe how UDOT will benefit from the implementation of this project, and who the beneficiaries will be.

Implementation will provide an acceptable method of accessing (and thus mitigating) indirect impacts to wildlife farm transportation projects. The results will benefit UDOT, Resources agencies, and the resource itself.

10. Describe the expected risks, obstacles, and strategies to overcome these.

No risks anticipated other than the challenge of applicability to wide range of ecosystems without extending testing and evaluations.

11. List the key UDOT Champion of this project (UDOT employee who will help Research Division steer and lead this project, and will spearhead the implementation of the results):

Shane Marshall – Environmental Program Manager – (801) 965-4384

12. Estimate the cost of this research study including implementation effort (use person-hours from No. 3):

$96,000

13. List other champions (UDOT and non-UDOT) who are interested in and willing to participate in the Technical Advisory Committee for this study:

Name	Organization/Division/Region	Phone
A) Brent Jensen	UDOT Envir/Hydraulics/Geotech Mgr.	801-965-4327
B) Paul West	UDOT Wildlife Specialist	801-965-4672
C) Tom Twedt	BIO-WEST, Inc.	435-752-4202
D) Greg Punske	FHWA Environmental Lead	801-963-0078 ext. 237
E) Adam Kozlowski	DWR Region 1	801-476-2740
F) Nathan Darnell	USFWS Ecological Services	801-975-3330 ext. 137

14. Identify other Utah agencies, regional or national agencies, or other groups that may have an interest in supporting this study:

Utah Division of Wildlife Resources
US Fish and Wildlife Service
Federal Highway Administration
US Army Corps of Engineers
Transportation Research Board